ABSTRACT

A system and method for determining flow quality statistics for real-time transport protocol (RTP) data flows is disclosed. Generally, a first endpoint is connected to a second endpoint, wherein the first endpoint comprises a transceiver, software stored within the first endpoint defining functions to be performed by the first endpoint, and a processor. The processor is configured by the software to perform the steps of, determining latency for the RTP data flows, determining jitter for the RTP data flows, and/or determining lost packets for the RTP data flows. Latency is determined by the first endpoint transmitting a test data packet to the second endpoint; the second endpoint looping the test data packet back to the first endpoint; comparing when the test data packet was received by the first endpoint to when the test data packet was sent to the second endpoint, to determine a round trip time; and, dividing the round trip time in two, resulting in the latency. Jitter is determined by beginning a timer when a first data packet of an RTP data flow is received by the first endpoint; stopping the timer when a second data packet of the RTP data flow is received by the first endpoint; and, adding measured time from the beginning of the timer to the stopping of the timer to an aggregate to obtain the jitter for the RTP data flow. Lost packets are determined by determining a sequence number of a received RTP data packet within the RTP data flow; storing the determined sequence number; calculating whether the determined sequence number sequentially falls within a numerical order; and, if the sequence number of the received RTP data packet does not sequentially fall within the numerical order, storing the sequence number as a missed RTP data packet.